

No. 649,101.

Patented May 8, 1900.

G. A. DE LONG.  
BUCKLE.

(Application filed Feb. 24, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

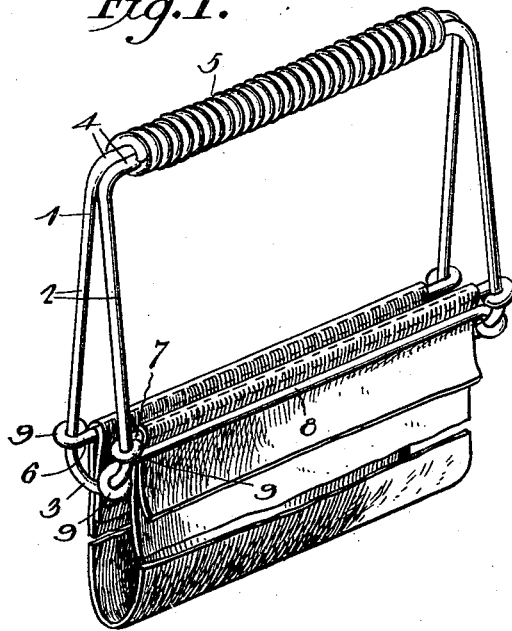


Fig. 2.

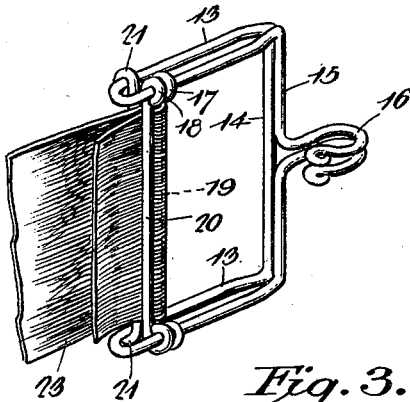
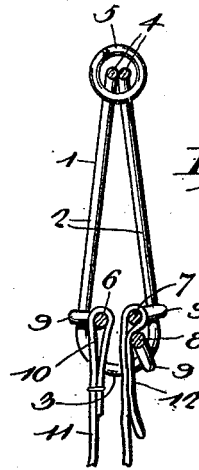


Fig. 3.

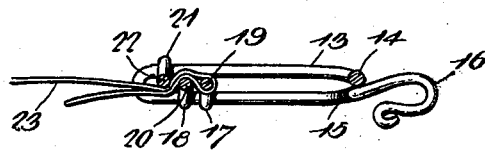


Fig. 4.

Witnesses  
J. Kaufman & Co., By his Attorneys,  
Chas. S. Hoyer.  
George A. De Long, Inventor.  
C. A. Snow & Co.

No. 649,101.

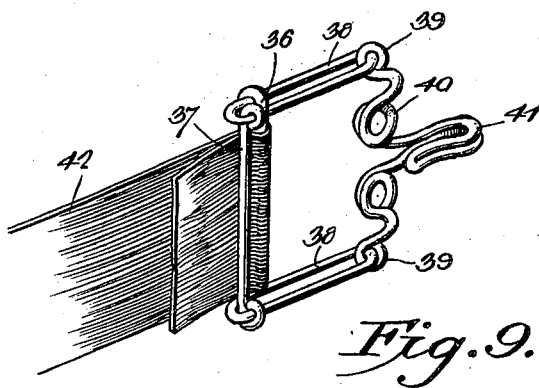
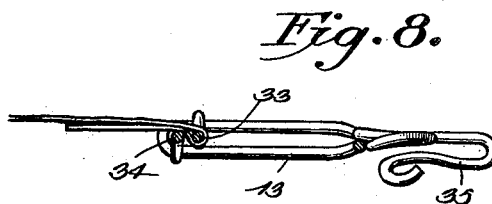
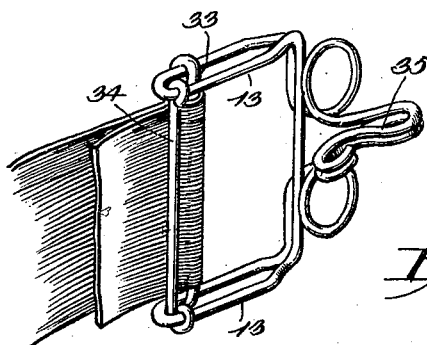
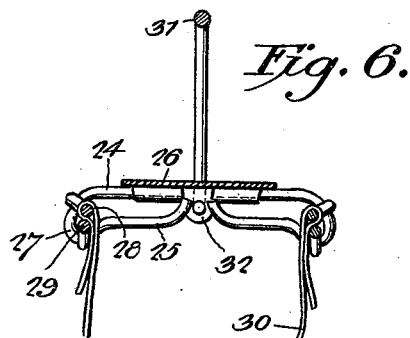
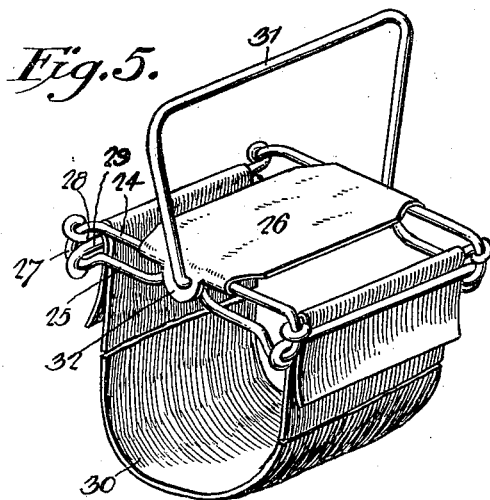
G. A. DE LONG.  
BUCKLE.

Patented May 8, 1900.

(Application filed Feb. 24, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses  
*J. Traifflerwell.* By *his* Attorneys,  
*George A. De Long, Inventor.*  
*Chas. S. Hoyer.* *Calnow & Co.*

# UNITED STATES PATENT OFFICE.

GEORGE A. DE LONG, OF CARTERVILLE, ILLINOIS.

## BUCKLE.

SPECIFICATION forming part of Letters Patent No. 649,101, dated May 8, 1900.

Application filed February 24, 1900. Serial No. 6,393. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE A. DE LONG, a citizen of the United States, residing at Carterville, in the county of Williamson and State of Illinois, have invented a new and useful Buckle, of which the following is a specification.

This invention relates to an attaching device having a general application to buckles, supporters, and the like; and the object of the same is to provide simple and effective means for affording quick securement and adjustment of bands, straps, and analogous devices without requiring the extended use of stitches or the delay incident to the ordinary methods of fastening buckles, supporters, and other similar devices to straps or bands and attain a positive fastening means which will not be loosened by strain exerted thereon in different directions and wherein one part relatively coacts with an adjacent part to bind or clamp the extremity of the band or strap, the latter being quickly adjustable to increase or decrease its girth extent.

The invention consists, primarily, in a frame having a plurality of loosely-mounted bars which are coextensive and conjointly act to set up a positive clamping action on the part of a strap, band, or other device in engagement therewith.

The invention further consists of opposite loops having a plurality of loosely-mounted bars thereon which automatically assemble in clamping relation when strain is exerted on a band or strap in engagement therewith, to thus positively hold the said engaged portion of the band or strap and prevent slipping of the latter, and, moreover, maintain the bars in conjunctive relation.

The invention further consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a frame provided with a grip or handle and a plurality of loosely-mounted bars embodying the features of the invention and adaptable for engagement with a broad band to provide a luggage-carrier or analogous device. Fig. 2 is a transverse vertical section of the device shown in Fig. 1. Fig. 3 is a perspective view of a portion of the buckle, show-

ing a plurality of loosely-mounted bars thereon of a nature somewhat similar to the arrangement shown by Figs. 1 and 2. Fig. 4 is a longitudinal vertical section of the device shown by Fig. 3. Fig. 5 is a modified form of frame having a plurality of loosely-mounted bars at opposite extremities and also adapted to receive a broad band to serve as a luggage or other carrying device. Fig. 6 is a transverse vertical section of the device shown by Fig. 5. Fig. 7 is a perspective view of a buckle embodying the features of the invention and showing a device similar to that illustrated by Fig. 3 and employing a less number of loosely-mounted bars. Fig. 8 is a longitudinal vertical section of the device shown by Fig. 7 when horizontally disposed. Fig. 9 is a perspective view of a further form of buckle, showing movable side loops carrying the loosely-mounted bars.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to Figs. 1 and 2, the numeral 1 designates a frame having converging side loops 2 of rigid form, with semicircular extremities 3 to provide guides, and opposite closely-arranged connecting-rod 4, encircled by a close coil or winding 5, of wire or other covering, to provide a grip or handle. On the semicircular extremities a plurality of loosely-mounted bars 6, 7, and 8 are mounted and have terminal eyes 9 slidably fitted to the said extremities, the said bars being also movable on the opposite side members of the loops 2, though this latter operation is not necessary to the result sought, as the bars work in clamping conjunction when located on the said extremities 3. One end 10 of a band 11 is looped over the bar 6 and, as shown, is secured by stitches, though it will be understood that this is not a necessary structural feature and that it is possible to hold the said end 10 over the bar 6 without any securing means other than the clamping action or coöperation of the correlative bars, and which will depend upon the dimensions of the several parts. On very large frames 1 it may be found preferable to stitch or otherwise secure the end 10 as long as the opposite end 12 is loose and always held in a readily-adjustable manner by being passed over the bar 7 and

having the bar 8 bearing against the outer surface thereof and forcing the said end against the adjacent body portion of the band, the bars 7 and 8 being always held in close binding relation when strain is exerted on the said band 11. It will be observed that the tension or pull on the ends of the band will draw the several bars in close relation, no matter in what direction it may be exerted, except at such an angle as to destroy the binding effect of the bar 8 and which would be in a plane above the latter or in such abnormal position as to render the band of no service in a practical manner. Hence the ends of the band are held firmly when the service of the same is being practically carried on—such, for instance, as in conveying luggage, to which the particular form of device shown by Figs. 1 and 2 is adapted.

The buckle member (shown by Figs. 3 and 4) comprises end loops 13, which have parallel parts, and the front end cross-rods 14 and 15 are brought closely together, and one of the same is continued at the center in an outward direction in the form of an articulating member 16, it being observed that this form of the device is produced from a single piece of wire of suitable gage and stiffness, and that the terminals are located within the structure of the said articulating member. The loops 13 are narrow in a transverse direction, and on one of the parts of each are movably mounted the terminal eyes 17 and 18 of loosely-mounted bars 19 and 20, and on opposite part of the loops the terminal eyes 21 of a third bar 22 are loosely mounted. The bars 19, 20, and 22 always maintain the same relation or that specified, and a strap or band 23 has its extremity passed over the bar 19, and bearing thereagainst is the bar 20, exerting a pressure in one direction, and on the reverse side the bar 22 exerting a pressure in the opposite direction, to thus form a double lock or a compound clamp, and the greater the strain on the band 23 the more closely the bars 19, 20, and 22 will be drawn together and increase the obstruction to the accidental disengaging or slipping of the band, but permitting the latter when relaxed to be quickly adjusted by catching hold of the free end and exerting a pulling action thereon. Instead of the hook form of the articulating member 16, as shown, it will be understood that a companion eye or loop may be as easily formed on the cross-rod 15.

The forms of the improved device thus far described each utilize three loosely-mounted bars in establishing the clamping action on the band or belt, and in the form shown by Figs. 3 and 4 a very effective device is produced for use in connection with wearing-apparel.

Figs. 5 and 6 show a further form of the improved device and wherein a frame 24 is illustrated having opposite double side loops 25 extending outwardly from a central supporting-plate 26, the outer extremities of the

said loops 25 having a downward deflection, as at 27, to form seats which receive the opposite terminals of a pair of loosely-mounted bars 28 and 29, the bar 28 on each side being above the plane of the bar 29 and having the end of a band or belt 30 passed thereover and then downwardly inside of the lower bar 29. It will be seen from the foregoing that a downward tension or strain on the bar 28 will cause the latter bar to move closely toward the lower bar 29, and a clamping action will be strongly set up on the attached ends of the band or belt. A relaxation of the strain or pull on the band or belt will permit a quick adjustment of either extremity of the latter, and if used as a luggage-carrier the said band or belt 30 may be reduced to any size around the parcel or bulk, as may be desired, and in the present instance another convenient form of providing a handle is shown and consists of a bail 31, having its ends movably attached in depending ears 32 at opposite ends by the plate 26. The opposite pairs of loops 35 are held in positive spaced relation in a transverse direction of the plate 26, and said plate being centrally applied the grip provided by the bail 31 will therefore be situated at a proper intermediate point.

In Figs. 7 and 8 a structure somewhat similar to that shown by Figs. 3 and 4 is disclosed, wherein two bars 33 and 34 are loosely mounted on the opposite side loops 13. The hook 35 in this instance is different from the hook or articulating member 16 of the device shown by Figs. 3 and 4, and in this instance also, as before explained, the hook may have a connecting-eye substituted therefor in order to provide a complete buckle or oppositely-positioned parts respectively carrying a hook and an eye. The principle of operation in the device shown by Figs. 7 and 8 is similar to that described in the device shown by Figs. 3 and 4, with the exception of the depletion of the third bar and the difference in result arising from said reduction.

In Fig. 9 another form of buckle is shown embodying the use of two loosely-mounted clamping or holding bars 36 and 37, which are carried by opposite loosely-mounted loops 38, having their front extremities freely movable in eyes 39 at the opposite ends of a front cross-frame 40, provided with a central articulating member 41. In this instance the band or belt will be permitted to have a vertical movement, or an adjustment, for instance, automatically conforming to the movement of the body of the wearer, and also illustrating that the end of the band or belt will be as securely held by a movable loop as by a fixed or rigid one and that the change of position of the support for the bars does not affect their gripping action when strain or tension exists on the band or belt.

The improved construction and arrangement of parts have a multiplicity of advantages other than those which have been enumerated and particularly referred to, and any

variation from the supporting structures illustrated, is contemplated by this improvement, as long as the salient feature of the invention is preserved, and which consists of the use of  
5 a plurality of loosely-mounted bars on a support therefor of any character for holding the ends of a band, belt, or analogous device when strain or tension is exerted thereon and permitting a ready adjustment upon relaxation.

10 Having thus described the invention, what is claimed is—

1. An attaching device or buckle comprising a support and a plurality of loosely-mounted bars having sliding movement thereon for  
15 clamping the extremity of a belt, band or analogous device.

2. An attaching device or buckle, having opposite side loops, with a plurality of loosely-mounted bars having sliding movement thereon, to adjustably receive the extremity of a  
20 belt, band or analogous device.

3. An attaching device or buckle, comprising a support having an articulating member,

and a plurality of loosely-mounted bars having sliding movement on the said support for  
25 engagement with a band, strap or belt.

4. An attaching device for a buckle, having a support, and a plurality of loosely-mounted bars having sliding movement on the said support, one of which is adapted to receive the  
30 extremity of a band or similar device therearound, and an adjacent one clamping against the said attached extremity.

5. An attaching device or buckle, having a support provided with loops, and a plurality  
35 of loosely-mounted bars having their terminals engaging opposite portions of the said loops in part, and a remaining bar between the others.

In testimony that I claim the foregoing as  
40 my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE A. DE LONG.

Witnesses:

M. HAMPTON,  
T. O. HAMPTON.